Supplementary Table 1: final Neurological diagnosis of patients admitted to emergency department according to the COVID-19 status.

	Total (n=505)	**non-COVID-19 (n=358)**	**COVID-19 (n=147)**	***p* value**
Neurological diagnosis				0.001
Stroke	156 (30.1%)	105 (29.3%)	51 (34.7%)	
Transient Ischemic Attack	50 (9.9%)	39 (10.9%)	11 (7.4%)	
Intracranial Haemorrhage	33 (6.5%)	20 (5.6%)	13 (8.8%)	
Epilepsy	38 (7.5%)	32 (8.9%)	6 (4.1%)	
Delirium/Altered Mental State	42 (8.3%)	18 (5.0%)	24 (16.3%)	
Encephalitis/meningitis	21 (4.1%)	7 (1.9%)	14 (9.5%)	
Primary Headache	28 (5.5%)	26 (7.2%)	2 (1.3%)	
Brain tumor	23 (4.6%)	17 (4.7%)	6 (4.1%)	
Vertigo/Dizziness	12 (2.4%)	12 (3.4%)	0 (0%)	
Other	105 (20.8%)	82 (22.9%)	20 (13.6%)	
Details of Other diagnosis				
Syncope	15 (3.0%)	10 (2.7%)	6 (4.1%)	
Transient global amnesia	10 (2.0%)	9 (2.5%)	1 (0.6%)	
Worsening of chronic neurological disease	17 (3.4%)	15 (4.1%)	2 (1.3%)	
Autoimmune disorders	15 (3.0%)	15 (4.1%)	0 (0%)	
Traumatic brain injury	9 (1.8%)	6 (1.6%)	3 (2.0%)	
Transient postural instability	8 (1.6%)	5 (1.3%)	3 (2.0%)	
Polyneuropathy	14 (2.7%)	10 (2.7%)	4 (2.7%)	
Cranial nerve mononeuropathy	6 (2.4%)	6 (1.6%)	0 (0%)	
Myopathy	2 (0.4%)	1 (0.3%)	1 (0.6%)	
Functional disorder	5 (1.0%)	5 (1.3%)	0 (0%)	

Methods

Study design and participants

The observational study included all adult patients evaluated for neurological symptoms by trained Neurologist at the Emergency Department (ED) of the Hospital "Azienda Socio Sanitaria Territoriale (ASST) Spedali Civili", Brescia, Italy. The study was approved by the local ethics committee of ASST Spedali Civili di Brescia Hospital (NP 4067, approved 08.05.2020).

Data collection and definitions

The medical form and admission data of included patients ranged from February 20th through April 30th 2020. Epidemiological, demographical, clinical, laboratory and outcome data were extracted from medical records using standardised anonymised data collection forms. All data were imputed and checked by five physicians (AP, AB, IL, SM, MG).

SARS-CoV-2 detection in respiratory specimens were performed by real-time RT PCR methods. Both nasopharyngeal and oropharyngeal swabs were performed in all patients. If two consecutive tests obtained at least 24 hours apart resulted negative, and there was high suspicion of COVID-19 (i.e. interstitial pneumonia at chest x-ray, low arterial partial pressure of oxygen), a bronchoalveolar lavage was performed.

Standardized blood examinations at ED included complete blood count, serum biochemical tests including C-reactive protein and liver profile.

Statistical analysis

Continuous and categorical variables are reported as mean with standard deviation and n (%) respectively. Differences between patients with and without COVID-19 were compared by t-tests, χ^2 test or Fisher's exact test and multivariate model adjusted for age and sex where appropriate. A two-sided $p<0.05$ was considered statistically significant. Differences in mortality were additionally adjusted for the presence of hypertension, diabetes, coronary heart disease, chronic kidney disease. and malignancy. Data analyses were carried out using SPSS software (version 22.0)

Legend to supplementary figure 1.

Different diagnostic distribution in neurological patients with COVID and without COVID at the Emergency Department. Abbreviations: COVID, COVID-19 disease; ENC, encephalitis/encephalitis; ICH, intracranial Haemorrhage, TIA, transient ischemic attack; TUM, Central Nervous system tumour or metastasis